Attorney Docket No. ASZD-P01-022

## **AMENDMENTS TO THE CLAIMS:**

## JC17 Rec'd PCT/PTO 2 0 SEP 2005

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims**

- 1-13. (cancelled)
- 14. (currently amended) A cholesterol-lowering therapy method, which method comprises the administration of melagatran a low molecular weight thrombin inhibitor, or a pharmaceutically acceptable derivative thereof[[,]] to a patient in need of such therapy.
- 15. (cancelled)
- 16. (currently amended) The method as claimed in of Claim 14 or Claim-15 wherein the therapy/treatment results in a decrease in serum levels of cholesterol, low-density lipoproteins, very low-density lipoproteins, triglycerides and/or apolipoprotein B; and/or an increase in serum levels of high-density lipoproteins and/or apolipoprotein A-I.
- 17. (cancelled)
- 18. (currently amended) The method as claimed in of Claim 1417, wherein the method comprises administering derivative of melagatran is a prodrug of melagatran.
- 19. (currently amended) The method as claimed in of Claim 18, wherein the method comprises delivering a prodrug is of the formula:

- wherein  $R^1$  represents linear or branched  $C_{1-6}$  alkyl and the OH group replaces one of the amidino hydrogens in Pab.
- 20. (currently amended) The method as claimed in of Claim 19, wherein R<sup>1</sup> represents methyl, ethyl, or propyl.

- 21. (currently amended) The method as claimed in of Claim 20, wherein R<sup>1</sup> represents ethyl.
- 22. (currently amended) A cholesterol-lowering therapy method, which method comprises the administration of a thrombin inhibitor. The method as claimed in any one of Claims 14 to 16, wherein the thrombin inhibitor is of formula I,

$$R^{1}$$
 $R^{2}$ 
 $R^{3}$ 

wherein

R<sup>a</sup> represents -OH or -CH<sub>2</sub>OH;

R<sup>1</sup> represents at least one optional halo substituent;

 $R^2$  represents one or two  $C_{1-3}$  alkoxy substituents, the alkyl parts of which substituents are themselves substituted with one or more fluoro substituents;

Y represents -CH<sub>2</sub>- or -(CH<sub>2</sub>)<sub>2</sub>-; and

R<sup>3</sup> represents a structural fragment of formula I(i) or I(ii):

wherein

 $R^4$  represents H or one or more fluoro substituents; and one or two of  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$  represent -N- and the others represent -CH-, or a pharmaceutically acceptable derivative thereof, to a patient in need of such therapy.

23. (currently amended) The method as claimed in of Claim 22, wherein the thrombin inhibitor or derivative is:

Ph(3-Cl)(5-OCHF<sub>2</sub>)-(R)CH(OH)C(O)-(S)Aze-Pab;

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(2,6-diF);$  or  $Ph(3-Cl)(5-OCH_2CH_2F)-(R)CH(OH)C(O)-(S)Aze-Pab.$ 

- 24. (currently amended) The method as claimed in of Claim 22 or Claim 23, wherein the derivative of the thrombin inhibitor or derivative is a prodrug of a thrombin that inhibitor.
- 25. (currently amended) The method as claimed in of Claim 24, wherein the prodrug is of formula Ia,

$$R^{1}$$
 $R^{2}$ 
 $R^{3a}$ 
 $R^{2}$ 

wherein R<sup>3a</sup> represents a structural fragment of formula I(iii) or I(iv):

wherein R<sup>5</sup> represents OR<sup>6</sup> or C(O)OR<sup>7</sup>;

R<sup>6</sup> represents H, C<sub>1-10</sub> alkyl, C<sub>1-3</sub> alkylaryl, or C<sub>1-3</sub> alkyloxyaryl, [[(]]the alkyl parts of which latter two groups are optionally interrupted by one or more oxygen atoms, and the aryl parts of which latter two groups are optionally substituted by one or more substituents selected from halo, phenyl, methyl or methoxy, which latter three groups are also optionally substituted by one or more halo substituents[[)]; and

R<sup>7</sup> represents C<sub>1-10</sub> alkyl, (which latter group is optionally interrupted by one or more oxygen atoms;), or C<sub>1-3</sub> alkylaryl; or C<sub>1-3</sub> alkyloxyaryl, [[(]]the alkyl parts of which latter two groups are optionally interrupted by one or more oxygen atoms, and the aryl parts of which latter two groups are optionally substituted by one or more substituents selected

from halo, phenyl, methyl or methoxy, which latter three groups are also optionally substituted by one or more halo substituents[[];]] and R<sup>a</sup>, R<sup>1</sup>, R<sup>2</sup>, Y, R<sup>4</sup>, X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub> and X<sub>4</sub> are as defined in Claim 22.

26. (currently amended) The method as claimed in of Claim 25, wherein the prodrug is:

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(OMe);$ 

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(2,6-diF)(OMe);$  or

 $Ph(3-Cl)(5-OCH_2CH_2F)-(R)CH(OH)C(O)-(S)Aze-Pab(OMe).$ 

- 27. (original) A combination product comprising:
- (A) a low molecular weight thrombin inhibitor, or a pharmaceutically-acceptable derivative thereof; and
- (B) another cholesterol-lowering, or lipid-lowering/modifying, therapeutic agent, wherein each of components (A) and (B) is formulated in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier.

28-29. (cancelled)

- 30. (currently amended) A <u>The</u> combination product as claimed in any one of <u>Claims Claims</u> 27 to 29, wherein the thrombin inhibitor <u>or derivative</u> is melagatran.
- 31. (currently amended) A <u>The</u> combination product as claimed in of Claim <u>27</u> 30, wherein the thrombin inhibitor or derivative of melagatran is a prodrug of melagatran.
- 32. (currently amended) A <u>The</u> combination product as claimed in of Claim 31, wherein the prodrug is of the formula:

wherein R<sup>1</sup> represents linear or branched C<sub>1-6</sub> alkyl and the OH group replaces one of the amidino hydrogens in Pab.

33. (currently amended) A <u>The</u> combination product as claimed in of Claim 32, wherein R<sup>1</sup> represents methyl, ethyl, or propyl.

- 34. (currently amended) A <u>The</u> combination product as claimed in of Claim 33, wherein R<sup>1</sup> represents ethyl.
- 35. (currently amended) A <u>The</u> combination product as claimed in any one of <u>Claims</u> <u>Claims</u> 27 to 29, wherein the thrombin inhibitor or derivative is a compound of formula I,

$$R^{1}$$
 $R^{2}$ 
 $R^{2}$ 

wherein

R<sup>a</sup> represents -OH or -CH<sub>2</sub>OH;

R<sup>1</sup> represents at least one optional halo substituent;

 $R^2$  represents one or two  $C_{1-3}$  alkoxy substituents, the alkyl parts of which substituents are themselves substituted with one or more fluoro substituents;

Y represents -CH<sub>2</sub>- or -(CH<sub>2</sub>)<sub>2</sub>-; and

R<sup>3</sup> represents a structural fragment of formula I(i) or I(ii):

wherein

 $R^4$  represents H or one or more fluoro substituents; and one or two of  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$  represent -N- and the others represent -CH-.

36. (currently amended) A <u>The</u> combination product as claimed in of Claim 27 Claim 35, wherein the thrombin inhibitor or derivative is:

Ph(3-Cl)(5-OCHF<sub>2</sub>)-(R)CH(OH)C(O)-(S)Aze-Pab;

Ph(3-Cl)(5-OCHF<sub>2</sub>)-(R)CH(OH)C(O)-(S)Aze-Pab(2,6-diF); or

 $Ph(3-C1)(5-OCH_2CH_2F)-(R)CH(OH)C(O)-(S)Aze-Pab.$ 

- 37. (currently amended) A <u>The</u> combination product as claimed in of Claim 27 Claim 35 or Claim 36, wherein the <u>thrombin inhibitor or</u> derivative of the thrombin inhibitor is a prodrug of a <u>thrombin that</u> inhibitor.
- 38. (currently amended) A <u>The</u> combination product as claimed in <u>of Claim 27</u> Claim 37, wherein the <u>thrombin inhibitor or derivative is a prodrug is of formula Ia</u>,

$$R^{1}$$
 $R^{2}$ 
 $R^{3a}$ 
 $R^{2}$ 

wherein R<sup>3a</sup> represents a structural fragment of formula I(iii) or I(iv):

$$\begin{array}{c|c}
 & X_1 = X_2 & N-R^5 \\
 & X_1 = X_2 & N-R^5 \\
 & NH_2 & X_3 = X_4 & NH_2
\end{array}$$

$$I(iii) \qquad I(iv)$$

wherein R<sup>5</sup> represents OR<sup>6</sup> or C(O)OR<sup>7</sup>;

- R<sup>6</sup> represents H, C<sub>1-10</sub> alkyl, C<sub>1-3</sub> alkylaryl or C<sub>1-3</sub> alkyloxyaryl, [[(]]the alkyl parts of which latter two groups are optionally interrupted by one or more oxygen atoms, and the aryl parts of which latter two groups are optionally substituted by one or more substituents selected from halo, phenyl, methyl or methoxy, which latter three groups are also optionally substituted by one or more halo substituents[[)]; and
- R<sup>7</sup> represents C<sub>1-10</sub> alkyl, [[(]]which latter group is optionally interrupted by one or more oxygen atoms;), or C<sub>1-3</sub> alkylaryl; or C<sub>1-3</sub> alkyloxyaryl, [[(]]the alkyl parts of which latter two groups are optionally interrupted by one or more oxygen atoms, and the aryl parts of which latter two groups are optionally substituted by one or more substituents selected

from halo, phenyl, methyl or methoxy, which latter three groups are also optionally substituted by one or more halo substituents); and

R<sup>a</sup>, R<sup>1</sup>, R<sup>2</sup>, Y, R<sup>4</sup>, X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub> and X<sub>4</sub> are as defined in Claim 35.

39. (currently amended) A <u>The</u> combination product as claimed in of Claim <u>27</u> 38, wherein the <u>thrombin inhibitor or derivative</u> prodrug is:

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(OMe);$ 

 $Ph(3-C1)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(2,6-diF)(OMe);$  or

 $Ph(3-Cl)(5-OCH_2CH_2F)-(R)CH(OH)C(O)-(S)Aze-Pab(OMe).$ 

- 40. (currently amended) A <u>The</u> combination product as claimed in any one of <u>Claims</u> <u>Claims</u> 27 to 39, wherein the other therapeutic agent is a statin.
- 41. (currently amended) A <u>The</u> combination product as claimed in <u>of</u> Claim <u>27</u>, 40 wherein the <u>other therapeutic agent</u> statin is lovastatin, pravastatin, fluvastatin, simvastatin, atorvastatin, pitavastatin, or rosuvastatin.

42-44. (cancelled)

- 45. (new) The method of Claim 22, wherein the therapy/treatment results in a decrease in serum levels of cholesterol, low-density lipoproteins, very low-density lipoproteins, triglycerides and/or apolipoprotein B; and/or an increase in serum levels of high-density lipoproteins and/or apolipoprotein A-I.
- 46. (new) The combination product of Claim 27, wherein the thrombin inhibitor or derivative is of the formula:

wherein  $R^1$  represents linear or branched  $C_{1-6}$  alkyl and the OH group replaces one of the amidino hydrogens in Pab, and the other therapeutic agent is a statin.

47. (new) The combination product of Claim 27, wherein the thrombin inhibitor or derivative is of the formula:

wherein  $R^1$  represents linear or branched  $C_{1-6}$  alkyl and the OH group replaces one of the amidino hydrogens in Pab, and the other therapeutic agent is lovastatin, pravastatin, fluvastatin, simvastatin, atorvastatin, pitavastatin, or rosuvastatin.

48. (new) The combination product of Claim 27, wherein the thrombin inhibitor or derivative is of the formula:

wherein Et represents ethyl and the OH group replaces one of the amidino hydrogens in Pab, and the other therapeutic agent is a statin

49. (new) The combination product of Claim 27, wherein the thrombin inhibitor or derivative is of the formula:

wherein Et represents ethyl and the OH group replaces one of the amidino hydrogens in Pab, and the other therapeutic agent is lovastatin, pravastatin, fluvastatin, simvastatin, atorvastatin, pitavastatin, or rosuvastatin.

50. (new) The combination product of Claim 27, wherein the thrombin inhibitor or derivative is:

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab;$ 

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(2,6-diF);$  or

 $Ph(3-Cl)(5-OCH_2CH_2F)-(R)CH(OH)C(O)-(S)Aze-Pab,$ 

and the other therapeutic agent is a statin.

51. (new) The combination product of Claim 27, wherein the thrombin inhibitor or derivative is:

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(OMe);$ 

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(2,6-diF)(OMe);$  or

 $Ph(3-C1)(5-OCH_2CH_2F)-(R)CH(OH)C(O)-(S)Aze-Pab(OMe),$ 

and the other therapeutic agent is a statin.

52. (new) The combination product of Claim 27, wherein the thrombin inhibitor or derivative is:

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab;$ 

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(2,6-diF);$  or

 $Ph(3-C1)(5-OCH_2CH_2F)-(R)CH(OH)C(O)-(S)Aze-Pab,$ 

and the other therapeutic agent is lovastatin, pravastatin, fluvastatin, simvastatin, atorvastatin, pitavastatin, or rosuvastatin.

53. (new) The combination product of Claim 27, wherein the thrombin inhibitor or derivative is:

 $Ph(3-C1)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(OMe);$ 

 $Ph(3-Cl)(5-OCHF_2)-(R)CH(OH)C(O)-(S)Aze-Pab(2,6-diF)(OMe);$  or

 $Ph(3-C1)(5-OCH_2CH_2F)-(R)CH(OH)C(O)-(S)Aze-Pab(OMe),$ 

and the other therapeutic agent is lovastatin, pravastatin, fluvastatin, simvastatin, atorvastatin, pitavastatin, or rosuvastatin.